245. The FCC defines joint and common costs as follows:

> Certain types of costs arise from the production of multiple products or services. We use the term "joint costs" to refer to costs incurred when two or more outputs are produced in fixed proportion by the same production process (*i.e.*, when one product is produced, a second product is generated by the same production process at no additional cost). The term "common costs" refers to costs that are incurred in connection with the production of multiple products or services, and remains unchanged as the relative proportion of those products or services varies (*e.g.*, the salaries of corporate managers). Such costs may be common to all services provided by the firm or common to only a subset of those services or elements. If a cost is common with respect to a subset of services or elements, for example, a firm avoids that cost only by not providing each and every service or element in the subset. For the purpose of our discussion, we refer to joint and common costs as simply common costs unless the distinction is relevant in a particular context.

CC Dockets 96-325 and 96-98; CC Docket 95-185 (August 8, 1996), ¶676.

246. Shared costs are expenses that are common to a family of products but are not avoided if one of the products is eliminated. Common costs are shared costs where the family of products is the total operations of the firm.

247. We will follow the convention of the FCC and refer to joint, shared, and common costs as simply "common costs."

248. The parties have advocated different methods for recovering common costs. AT&T/MCI and U S WEST have submitted cost studies that include cost factors that are designed to account for these common costs. These parties allocate common costs by applying a fixed allocator to the directly attributable forward-looking costs.

249. Sprint also supports the use of a fixed allocation method for the recovery of common costs. Sprint Brief at 13. The cost model that it has sponsored, the BCPM, does not use this method. Rather, it assigns overhead costs on a per line basis.

250. GTE, WITA, TCG/NextLink, and Commission Staff, on the other hand, recommend against employing a common cost factor to the directly attributable costs. These parties contend that a cost study should be used to establish a price floor for products and not a revenue requirement. Commission Staff Brief at 7; GTE Brief at 72; WITA Brief at 11-12; TCG/NextLink at 18.

251. The Commission concurs that the recovery of common costs is a Phase II pricing issue and therefore we have excluded this expense from the Hatfield Model, BCPM, and the US WEST loop study. Common costs were not included in GTE's cost models. Parties are directed to present testimony in Phase II of this proceeding on 1) the level of common costs that should be recovered through the price of UNEs; and 2) how individual prices should be established (*e.g.*, a "mark-up" that is inversely or directly proportionate to the elasticity of demand). We also direct parties to make specific tariff recommendations.

252. Commission Staff also contends "that a factor of 20% be added to the TELRIC loop estimate to account for costs that are not attributed to particular unbundled elements, but are nevertheless part of a proper TELRIC analysis." Commission Staff Brief at 35.

253. Commission Staff's Brief does not provide a citation for the 20% factor, but it appears to be based upon U S WEST's claim that there should be a 20% additive for attributable costs. The 20% value was derived from a U S WEST study. Exh. 104 at 26.

254. U S WEST's loop study includes an allowance of 20% for attributable costs. Commission Staff substituted this 20% value for the Hatfield's Model default loading factor of 10.4% for common overhead costs. Exh. 104, TLS-3, at 3.

255. Commission Staff did not indicate whether or not, for the BCPM and GTE models, there also should be a 20% mark-up for attributable costs.

256. In our running of the Hatfield Model, we use a zero value for common overhead costs, rather than Commission Staff's 20% input value. We have not adopted Staff's recommendation for the Hatfield Model because we are concerned that the 20% loading factor may be associated with costs that are captured elsewhere in the model.

257. We direct Commission Staff and other parties to address in Phase II the need for including in the price of the loop a mark-up for the 20% factor contained in Staff's testimony.

O. Loop Summary

258. The parties recognize that their cost studies are imperfect and they are in the process of revising them. Tr. 348 (AT&T), 1095-96, 1099-1102 (GTE), 1234 (Sprint), and 1849 (USWC).

259. TCG/NextLink suggests that the Commission focus on establishing the right price for unbundled network elements. TCG/NextLink contends that the Commission should not select a single model; rather, it should use the collective information found in the evidence of record to estimate the efficient costs of interconnection and unbundled network elements. TCG/NextLink Brief at 14-15.

260. TRACER argues that if the Commission does not select a model, "the various provider parties will simply be encouraged to continue to exhaust the Commission's, and others', resources examining the latest iteration of a gamed model designed to promote and disguise a particular company's strategic objectives." While it recommends that the Hatfield Model be adopted, TRACER finds the model to be "flawed" and suggests that it "be modified both with respect to its algorithm[s] and its inputs[.]" TRACER Brief at 8-9.

261. We disagree with TRACER regarding the efficiency of adopting the Hatfield Model. Accepting that the model needs to be modified, there is no basis for concluding that the redesigned Hatfield Model would be a better starting point in subsequent cases than any of the other revised models.

262. We agree with TCG/NextLink that prudence dictates that no single model be adopted at this time. In light of the current revisions being made to the models and the speed with which upgraded versions of the models are being introduced, we find that the loop models filed in this proceeding provide only a range of reasonableness. Our conclusion also is consistent with the position advocated by U S WEST witness Reynolds: "[W]e advocate that the Commission look at a number of different data points[.]" Tr. 1849.

263. Subsequent to the close of the record in this proceeding, revised versions of all of the loop models have been released by the sponsors. The Hatfield Model version 3.1 and the Benchmark Cost Proxy Model version 1.0 have been sponsored and challenged in this proceeding. In the intervening months prior to this Order, the model sponsors have released at least two new versions of each model. U S WEST's loop model, RLCAP, has also been revised. GTE has developed a new loop model, ICM. The model sponsors assert that these newer versions provide greater transparency, are more user friendly, and address some of the criticisms made of the versions of the models sponsored in this proceeding.

264. We see little or no advantage in adopting any of the loop models sponsored in this proceeding. The critics have shown that the existing models have a combination of flaws. For example, GTE's loop model adjustment for spare capacity is seriously flawed because the wrong size facilities are used to develop unit costs. Furthermore, the model is closed and inflexible. The Hatfield Model has algorithmic errors, the assumed level of sharing is unreasonable, and the method used to validate the cost of installing outside plant facilities is seriously flawed. U S WEST's loop model

is inflexible, closed, and uses inputs for buried cable and utilization rates that are inconsistent with its actual operations. Finally, the BCPM inputs are based upon a proprietary study of LEC operations, thus violating the Commission's requirement for the use of open models, its use of per line expenses for outside plant is not economically sound (Exh. 31 at 28), and it has at least one algorithmic error.[24] Tr. 1209-1212.

265. In light of these problems, we believe that the models proposed in this case provide only a zone of reasonable cost floors. In the next section of our decision, we review the results of running the different models after we have made the changes identified above.

P. Loop Costs

266. In the Table, *infra*, we provide the loop costs obtained from the different models.

267. There were a number of changes that we are unable to make to the models because they do not exhibit sufficient flexibility. For example, the RLCAP does not permit the user to adjust the cost of money or the depreciation. Rather, in order to undertake sensitivity analysis with the model, a user needs to have access to U S WEST's main frame program, CAPCOST.

268. Whereas the CAPCOST program was not part of the evidence of record, we have used the filed version of RLCAP that reflects prescribed depreciation rates and a 9.37% cost of money. If we were able to access CAPCOST, however, we do not believe our costs would change significantly. We note, for example, that if the cost of money in the default version of the Hatfield Model is increased from 9.37% to 9.63%, U S WEST's estimated monthly loop cost increases by 1.6%.

269. The following Table summarizes our findings regarding U S WEST. On the first line of the Table are the costs reported by the different models after we make the changes we describe fully above. There are a few areas in which we could not modify the models to comport to our findings. In those instances, we indicate the likely impact on the loop cost. Based upon the evidence of record, we find that the cost of the unbundled loop is $17.00.

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[24] Sprint does not propose a correction for the error. The error is associated with the calculation of taxes. Sprint proposes that the model's calculations be ignored and that annual charge factors be substituted for the models' CAPCOST program. Tr. 1209-1212. Unfortunately, there is no reasonable, open, CAPCOST program that is part of the evidence of record in this proceeding.

	Hatfield	BCPM	RLCAP
Commission's run of the model	$13.53	$17.23	$13.76
Placement Costs	Increase Cost, ¶98		
Load Coils	Increase Cost, ¶14513026813020 413016413098		
Load Coils	Increase Cost, ¶145		
Special Access Lines	Increase Cost, ¶204		
Impact of Competition	Increase Cost	Increase Cost	Increase Cost
Fill Factor			Reduce Cost 8.7%, ¶185
Drop			Reduce Cost $0.69, ¶116
Calculation of Unit Costs			Reduce Cost, ¶188
Structure Sharing			Reduce Cost, ¶68

270. The following Table summarizes our findings regarding GTE. On the first line of the Table are the cost estimates reported by the different models after we make most of the changes we describe fully above. There are some areas in which we cannot modify the models to comport to our findings. In those instances we indicate the likely impact on the loop cost. Based upon the evidence in the record, we find that the cost of the unbundled loop is $20.00.

	Hatfield	BCPM	GTE LTM filed[25]
Commission's run of the model[26]	15.73	24.18	25.03
Placement Costs	Increase Cost. ¶98		
Load Coils	Increase Cost. ¶145		
Special Access Lines	Increase Cost. ¶204		
Impact of Competition	Increase Cost	Increase Cost	Increase Cost
Fill Factor			Reduce Cost 8.7%. ¶185
Drop			Reduce Cost $0.69. ¶116
Calculation of Unit Costs			Reduce Cost. ¶188
Structure Sharing			Reduce Cost. ¶68

[25] Exh. CC-64 at 55. GTE filed cost of $31.22, less adjustments for depreciation and an 11.25% cost of money.

[26] We are unable to run the GTE loop model and therefore only provide the results contained in its cost witnesses' testimony.

VI. DEAVERAGING COSTS

271. Commission Staff contends that questions of how and the extent to which network element costs are calculated on a deaveraged basis should be addressed in the context of universal service reform, deaveraged retail prices, and the extent of competitive activity in Washington State. Staff is concerned that if loop costs were deaveraged without a universal service fund mechanism in place to accommodate the cost shift, subscribers might be forced to leave the network. Commission Staff Brief at 54. U S WEST, Public Counsel, WITA, and GTE also expressed their opposition to rate deaveraging at this time. U S WEST Brief at 95; Public Counsel Brief at 47; WITA Brief at 27; GTE Brief at 97. TCG Seattle supports the deaveraging of rates, noting that this is a requirement established by the FCC, and that it is unlikely U S WEST would be permitted to provide interLATA services until its rates have been deaveraged. TCG/NextLink Brief at 27-28.

272. AT&T/MCI and Sprint argue that, from an economic perspective, deaveraging is appropriate because it will lead to rates which more closely reflect the cost of providing UNEs and interconnection. If rates are not deaveraged, uneconomic entry may occur in low cost urban areas and efficient entry in rural areas may be prevented. AT&T/MCI Brief at 83-84; Sprint Brief at 82-84.

273. The FCC's Interconnection Order requires state public utility commissions to establish a minimum of three geographically deaveraged pricing zones for unbundled network elements. FCC Interconnection Order at ¶765. In light of the Eighth Circuit decision, we are not bound to follow that provision of the FCC Interconnection Order.

274. We choose not to deaverage UNE and interconnection rates at this time. We agree with Commission Staff and the other parties who argue that it is more appropriate to consider this issue in the context of universal service reform, deaveraged retail prices, and the extent of competitive activity in Washington State.

VII. COST OF SWITCHING

A. Cost Structure

275. The Hatfield Model computes switch investment on a per-line basis. According to AT&T/MCI, the unbundled switch network element, by definition, includes all the features, functions, and capabilities of the switch, including its vertical features. 47 C.F.R. §51.319(c)(1)(C)(1) & (2). AT&T Brief at 61.

276. In defining the switch element, the FCC concluded: "Thus, when a requesting carrier purchases the unbundled local switching element, it obtains all switching features in a single element on a per-line basis." FCC Interconnection Order, ¶412. The FCC's definition of the switch element and that portion of its First Report and Order cited above remain in full force and effect. *Iowa Utilities Board v. FCC*, 120 F.3d 753 (8th Cir. 1997) (Eighth Circuit decision).

277. AT&T argues that the tariff rate for the switch should be set in a manner consistent with the FCC's findings. Under AT&T's proposed rate structure, the rate would be independent of the number of vertical features used by AT&T and the retail subscriber.

278. GTE expresses concern that if the marginal price of switch features is zero, its processors would experience exhaust prematurely and therefore require additional investments. GTE Brief at 73.

279. We find GTE's concern unconvincing for several reasons. Even if the tariff rate to CLECs for vertical features is zero, this would not mean, as GTE presumes, that the retail price would be zero.[27] Since the CLECs are not likely to give the service away free of charge, GTE's concern about congestion is based upon an unreasonable assumption. GTE proposes a pricing structure with different charges which varies depending upon the switching features selected. GTE expresses the concern that if its proposed rate structure is not adopted, it would be compelled to re-size its processors "to reflect the more intensive use of the switch features." GTE does not present any evidence to suggest that its processors are near exhaust. Instead, its cost study suggests that its processors' utilization is not likely to exhaust in the foreseeable future. Exh. C-67 at 8-9; GTE Response to Bench Request Set One, Number 7; GTE SCIS Study Level Input Statistics Report, Processor Utilization, page 000309.[28] Paradoxically, GTE's cost estimate for vertical features reflects the assumption that the frequency of usage of a feature is the same for an unbundled network element as it is for retail services. GTE Response to Bench Request Set One, Number Four.[29] This presumption contradicts the company's assertion that a customer of a CLEC would use vertical features more often than would retail customers.

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[27] "If GTE is required to offer unlimited use of its switch on a per line, flat rate basis, the CLECs will have an incentive to price their services in such a way so as to promote maximum usage of GTE's switch." GTE Brief at 73. Maximum usage would occur at a price of zero.

[28] Neither did U S WEST provide data which suggests that its processors are nearing exhaust. BCH 01-0008.

[29] The same assumption is made by U S WEST. BCH 01-0005. As there are economies of scale in the usage of vertical features, and if GTE is correct that the usage of vertical features would be higher for vertical elements, GTE's study overstates the unit cost of using unbundled network elements.

280. Charging for vertical features is also inconsistent with the manner in which the equipment is currently acquired. Rather, the inclusion of features in the cost of the port is consistent with the structure of the ILEC's contracts with their vendors. See, for example, U S WEST's Response to BCH 02-0001; GTE Response to BCH 2-001; Tr. 1152-53.

281. Neither GTE nor U S WEST provide a compelling reason to establish a separate charge for vertical features. Their cost estimates are based upon closed models and the reported costs reflect a cost structure that is not observed in their contracts with their suppliers. Therefore, in this proceeding, we will not establish a separate charge for vertical features.

282. We do not rule out the possibility that in some future proceeding, a separate charge for vertical features could be established. For example, a party may be able to show through regression analysis that the investment per line, all else remaining equal, is higher at locations where a centrex-type service is provided. This type of regression analysis can be done using data that is not subject to the restrictive proprietary claims placed on the ILEC's switching models. The analysis could provide useful insight into the question of the degree to which vertical services require more investment than ordinary voice services.

B. Cost Levels and Selection of Switching Model

283. The Hatfield Model proposes that switching investment per line be estimated by analyzing four data points. The investment per line for the regional Bell operating companies (RBOCs), GTE, and the independent LECs was derived from the Northern Business Information (NBI) publication, *U.S., Central Office Equipment Market: 1995 Database*. A fourth value for large switches of 80,000 lines was developed from an unnamed industry source. The number of central office lines was obtained from ARMIS data. Exh. 40, Hatfield Model: Release 3.1, Model Description, at 42.

284. GTE objects to the analysis. Specifically, GTE points out that 1) the line and cost data were obtained from two different sources; and 2) one of the four data points was not documented. GTE Brief at 74-76.

285. We concur with GTE that absent a showing that the switch sizes used in the Hatfield regression analysis were comparable in size to the average size switch installed by the RBOCs, GTE, and the independent LECs, it was inappropriate to match data on 1995 switch purchases with ARMIS data on switch sizes. With regard to the undocumented data point, it is unacceptable to use data from an unverifiable conversation with an unidentified switch vendor. For these reasons, we will not use the Hatfield inputs to determine the level of switching investments.

286. GTE filed results from its SCIS cost studies, but the Company emphasizes that the cost estimates are "for illustrative purposes only." The Company explains that "[t]he estimates are based on the most current inputs available and the [current] costing methodology . . . GTE reserves the right to present new cost estimates in subsequent phases of this proceeding." Exh. 64 at 54.

287. This proceeding has two phases, only two phases, and was initiated by an Order clearly defining the two phases of this proceeding: "First is a 'generic' investigative proceeding relating to the development of an appropriate and consistent cost methodology to determine costs of providing certain telecommunications services. The other two matters are investigations . . . to determine . . . the proper level of prices for interconnection, unbundled network elements, transport and termination, and resale. " Therefore, we will not accept the filing of any new GTE cost studies that reflect its more recent thinking regarding input values and costing methodology.

288. We also find the GTE switching cost study to be unacceptable because of inadequate documentation. The Company has provided a computer printout of its study, but the documentation does not include page cross-references.[30] Without cross-references, it is not possible to see how information is transferred from one part of the study to another.[31]

289. We also disagree with some of the SCIS's costing methodology. For example, SCIS includes a cost element called excess CCS Capacity Investment per line. GTE Document Page 000343. GTE explains that "[e]xcess CCS Capacity Investment is that portion of the traffic sensitive investment not recovered by actual usage. It occurs when the input CCS per line, that is the actual usage, is less than the adjusted capacity breakpoint CCS per line. It recovers the investment of the unused LCM (line concentration module) CCS not recovered by the Usage Investment component. Excess line CCS is spread across all line terminations to recover that investment." GTE Response to Bench Request 2-003.

290. Traffic sensitive investments should be recovered from traffic sensitive rate elements. The line on a switch is classified as a non-traffic sensitive investment. SCIS's assignment of residual traffic sensitive costs to lines does not make economic sense. Traffic sensitive costs should be recovered from traffic sensitive rate elements.

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[30] The U S WEST cost studies do a better job of identifying the source for the different values which appear on its computer printouts. See, for example, Exh. C-115, U S WEST 1996 Local Interconnection Usage Costs, Washington, August 1996, at 5 of 19.

[31] GTE also provided a spreadsheet version of its switching cost study, but this too provides insufficient documentation. For example, we tried to determine how GTE estimated the cost of the two-wire basic port. In the Lotus spreadsheet, Exh. 65, watelric.wk4, folder MiscFeatSum, line 13, the cost -- less billing, collection, and directory costs -- appears, but it is not possible to determine how this value was derived.

291. GTE points out that SCIS can produce both marginal and average costs. If the former option is selected, unit costs are developed by dividing a facility's cost by its capacity. If the latter option is employed, the unit cost is developed by dividing the cost by the level of demand. In this proceeding, GTE used the marginal cost study approach. Exh. 67 at 9-10; Tr. 1147.

292. The selection of the marginal cost approach in the switching study is inconsistent with the method GTE proposes for loops: "GTE advocates the use of a composite actual fill, which is the actual level of utilization for both feeder and distribution plant." GTE Brief at 63. If GTE had used the average cost option in SCIS, the method would have been consistent with the approach used in its loop study.

293. Since the actual level of demand will be less than the capacity of the facilities, theoretically GTE's methodology has the potential to lead to an under recovery of the total cost of a facility. This would likely occur because the unit cost developed under the marginal cost approach times the actual level of demand will generate a level of revenue that is less than the total cost-of-production.

294. The SCIS Model developer, Bellcore, requires persons who do not have a contractual relationship with it to sign a confidentially agreement different than the Commission's standard agreement for protecting parties' proprietary information. Bellcore does not believe that our standard protective agreement provides adequate protection. As noted by Public Counsel, in Docket No. UT-950200, we believe that public models are preferable. Public Counsel Brief at 26. In that proceeding, we noted that the public should be provided with the opportunity to review our basis for establishing rates. We added that "[i]n some cases . . . secrecy may be necessary, but it certainly should be avoided where reasonable alternatives exit." Fifteenth Supplemental Order, Docket No. UT-950200 (April 11, 1996) at 86.

295. The U S WEST switching estimates were derived from its internal, proprietary switching module, SCM.[32] U S WEST Brief at 62-65.

296. Commission Staff attempted, but was unable, to verify the switch prices that were used as inputs to the GTE and U S WEST switch models. Exh. 104 at 10-11; Exh. 106 at 5.

297. Many parties urged the Commission to maintain our policy that models be "based on public data and an open process, so that any interested person can determine what data is used and how it is used." Shared Communications Services

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[32] Relative to the GTE and Hatfield switching algorithms, the record contains little discussion of the U S WEST cost models. AT&T/MCI notes that they were unable to run the U S WEST switch model. Brief at 65.

Brief at 1. See, also, for example, Public Counsel Brief at 26-27; AT&T/MCI Brief at 62-63. A preference for models that are in the public domain is a criterion accepted by other public utility commissions. In explaining its decision not to use proprietary cost models, the Nevada Public Service Commission stated that it "does not believe adopting a proprietary model for the purposes of developing costs for UNEs is consistent with the FCC criteria. (Universal Service Order, ¶250(8) and (9)). The Commission believes there are benefits to adopting a public model, including availability, verifiability, and replicability." *In re Petition by Regulatory Operations Staff for Investigation into Procedures and Methodologies to Develop Costs for Bundled and Unbundled Telephone Services and Service Elements in Nevada*, Docket No. 96-9035 (December 11, 1997), ¶51.

298. Since there are reasonable alternatives that do not rely on proprietary models for estimating the cost of total switching investment, we will not use either the SCIS or SCM Models for the costing of UNEs.

299. GTE argues that the most important reason for rejecting the Hatfield Model is because it fails "all external validity tests." To illustrate this claim, GTE notes that "The [Federal Communications] Commission Staff to the Joint Board calculated the 1995 fixed [investment] of a switch to be $185,374.00 and the 1995 per-line [investment] to be $107.00." GTE Brief at 76. The FCC Staff study is based upon an analysis of data that is in the public domain.

300. The average line size on a GTE switch is approximately 4,300 lines. GTE Response to Bench Request 1. If the fixed cost of $185,374.00 is averaged over those 4,300 lines, the investment per line, according to the data identified in GTE's Brief, is $150.00 per line (185,374/4,300 + 107). For the port alone, the GTE/SCIS studies suggest that the investment per line is approximately $144.00.[33] Whereas GTE argues that the port constitutes approximately 50% of the total switch investment (Exh. 79, Attachment 1, at 30, and Attachment 2, at 25), the effective total investment suggested by SCIS would be approximately $288.00, well in excess of the value which GTE suggests should be used to validate a model.[34]

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[33] See, Exh. 65, watelric.wk4, folder loopsum, cell d49 divided by folder loop_bnf, sum cells e21 to e27. This quotient is multiplied by 12 in order to convert the monthly to a yearly value. The $144.00 value is larger than the investment values reported in responses to Commission Bench Request 2-002. Unfortunately, because of the poor documentation, we are unable to determine the source of the difference.

[34] The New York Public Service Commission (NY PSC) recently declined to use the SCIS model because the cost estimates were unreasonably high. Like the FCC study cited by GTE, the NY PSC used data from the ILEC's depreciation report to determine the current investment per line. *Opinion and Order Setting Rates for First Group of Network Elements, Joint Complaint of AT&T Communications of New York, Inc. et al. Against the New York Telephone Company and Sections of New York Telephone Company's Tariff*, Docket 95-C-0657 (April 1, 1997) at 84-86.

301. GTE contends that SCIS should be used because it properly captures the "drivers" that determine the engineering rules and design specifications of commercially available switches. GTE witness Tucek claims that SCIS reflects that there are many cost drivers on a switch besides lines, and that engineers size the switching machine based upon additional cost drivers, such as busy-hour call attempts, busy-hour CCS, and feature mix. Exh. 67 at 2-7; Tr. 1153-54.

302. We concur that conceptually SCIS is a rich model that uses many different cost drivers to size a switch and to identify the level of investment. However, we do not accept the use of the model to estimate switching investment and expense for several reasons: the reported cost levels are not reasonable (reference ¶300 immediately above); the model is closed (reference ¶298, *supra*); and we are concerned about the underlying costing methodology (reference ¶¶290, 293, *supra*).

303. The U S WEST switching cost model (SCM) also uses many cost drivers to estimate the level of switching investment and expense. Exh. C-115, U S WEST Communications Cost Manual, Volume I: Cost Methodology and Descriptions of Annual Cost Factors and Models, at 95-97.

304. We likewise will not accept the use of this model to estimate switching investment and expense. Like GTE's SCIS, the U S WEST model is proprietary. As we stated above in paragraph 299, we will use reasonable non-proprietary alternatives whenever they exist.

305. Furthermore, the SCM cost estimates for a port with vertical features do not seem reasonable. U S WEST reports that the TELRIC for a port with custom calling, most standard Centrex features, and class services is $5.31 per month. Exh. C-115, Analog End Office Line Port Recurring Costs, 1996 Cost Study, August 1996. If we assume an annual charge factor of 25%, this is equivalent to finding that the investment per line is approximately $255.00. At the end of 1995, U S WEST had 1,312,658 equipped lines that were served through 110 wire centers. U S WEST Response to Bench Request Set One, Item 3, Attachment E. Assuming a 90% utilization level, this corresponds to approximately 10,740 working lines per switching machine. GTE has suggested that we use data from an FCC proceeding to validate the reasonableness of the switching investment estimates. Applying the validation test suggested by GTE, and summarized above in paragraph 300, the FCC data correspond to a prospective investment of approximately $124.26 per line (185,374/10,740 + 107). Based upon the application of the validation test urged upon us by GTE, the U S WEST estimated costs are not reasonable.

We note too that the port cost report by GTE is more than twice the cost estimated by U S WEST. Exh. C-117, Appendix 1, Table 1 & 2. Also, the SCIS investment is significantly higher than the U S WEST SCM port investment estimate. Compare GTE Response to Bench Request 2-002, with Exh. C-115, Analog End Office Line Port Recurring Costs, 1996 Cost Study, August 1996, at 5-2.

306. Moreover, we are concerned about the difference in cost suggested by U S WEST's incremental and embedded studies. The embedded SCM study suggests that the incremental cost of providing CLASS [services] is rather small. A different conclusion is reached however in the forward looking SCM study. Compare Exh. C-115, Analog End Office Line Port Recurring Costs, 1996 Cost Study, August 1996, at 4-1, with Exh. C-173, "Income Statement Across Products," Account 23500, line 34. As the cost of digital switching is generally declining (GTE Response to Bench Request Set One, Item 5), we find U S WEST's implicit conclusion to the contrary to be unreasonable.

307. Having found the switching investment estimates sponsored by GTE, U S WEST, and AT&T/MCI to be unreasonable, we have evaluated data provided in response to bench requests to determine the investment per line. GTE and U S WEST provided, for each of their switching centers, their embedded investment and the number of switched lines.[35] We converted the embedded investment to 1997 dollars using the telephone plant index for digital switching that was supplied by GTE.[36]

308. A few of the reported data points were excluded because the numbers seemed unreasonably low or high. After excluding these outliers, we found that for the remaining 243 observations, the average investment was $205.03 per equipped line. This value is consistent with acquisitions made subsequent to 1994 -- $207.77 per line.[37]

309. The investment per line generally declines as the number of lines on the switch increases. This occurs because the getting started cost of a switch is shared with a larger number of customers. Whereas U S WEST's average number of lines per switch is a higher value than the value for GTE, U S WEST's investment per line is lower. The average investment per equipped line is $257.94 and $186.37, respectively, for GTE and U S WEST.

310. Not all equipped lines produce revenue. In order to make an allowance for the difference between equipped and revenue-producing lines, we adjust the unit cost upward by eight percent. This adjustment raises the investment per line to $278.58 and $201.28, respectively, for GTE and U S WEST.

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[35] GTE Response to Bench Request No. 1, Item 1; U S WEST Response to BCH 01-003. GTE and U S WEST provided slightly different data.

[36] We did not use the U S WEST number because the values did not look reasonable and, because unlike the GTE numbers, U S WEST claimed that the data was proprietary. U S WEST Response to BCH 01-006; GTE Response to Bench Request No. 1, Item 5.

[37] If the outliers are included, the average investment for entire data set and for post-1994 is $213.12 and $109.35, respectively.

311. The GTE value calculated in the prior paragraph is quite high and is inconsistent with the FCC formula that GTE proposes be used to validate the reasonableness of switching investment values. The FCC data analysis suggests that a value of approximately $150.00 is more appropriate. The $257.94 is also out of line with the contract data provided in GTE's Response to Bench Request no. 1, Item 1. Similarly, the $201.23 value for U S WEST is inconsistent with the information provided by U S WEST in its response to BCH 02-001.

C. Loop Summary

312. Based upon our evaluation of data provided by the ILECs in response to various bench requests, including their vendor contracts, as well as the [FCC] Joint Board Staff switching investment analysis cited by GTE, we conclude that a reasonable value to assign the investment per working line is $150.00.[38] We will use this value for both GTE and U S WEST. While we recognize that historically the unit cost per line declines as the size of the switch increases, the vendor contracts provided by GTE and U S WEST indicate that the industry has moved to a per line charging mechanism in recent years.

313. The Hatfield Model assigns 70% of the cost of switching to traffic and the remaining 30% to the port. Exh. 40, RAM-3, at 75. This valuation was not challenged by the other parties.

314. We agree with AT&T that the rate structure for switching should have two elements, a port (non-traffic sensitive) charge and a usage (traffic sensitive) fee; the investment per line must be assigned to both. Data contained in GTE's depreciation studies suggests that the portion of traffic sensitive investment may be somewhat lower than 70%. The depreciation studies suggest that the port related investment could be as high as 60%. Exh. 79, Attachment 1, at 30, and Attachment 2, at 25. For costing the switch, we will assign 45% of the cost to the port.

315. Based upon our findings of a switching investment of $150.00 per line and that 45% of the cost is associated with the port, the port and traffic-sensitive investments are $67.50 and $82.50, respectively.

316. The non-port investment can be converted to a per minute charge through a two-step process. First, the busy-hour investment is converted to a daily investment by dividing the expenditures by the percentage of daily usage which occurs during the busy hour. Then the investment is annualized by dividing the daily cost by the number of business days, plus some additional days for weekends. U S WEST Response to Bench Request 01-0009; Exh. 40, RAM-3, inputs B93 and B94.

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[38]This value is higher than the investment level reported in the contracts because the contract values do not reflect such miscellaneous investment costs as telephone company engineering, power, and the main distribution frame.

317. Based upon the data provided by GTE and U S WEST, we have converted the non-port investment to a minute-of-use cost. We did this by assuming that during the busy hour, the usage was five minutes per line.

318. We divide the per minute investment per line ($82.50 divided by five minutes), by 2,776 (GTE) and 3,296 (US WEST), respectively. GTE Response to Bench Request No. 1, Item 8, file WAUSAM.WK4, folder main, lines; U S WEST Response to Bench Request 01-0009. The per minute investment is $0.00594 for GTE and $0.00501 for U S WEST.

319. Investments can be converted to a monthly cash flow requirement through the application of annual charge factors. Unfortunately, none of the models provide a transparent, economically rational, method for modifying annual charge factors in a manner that is consistent with our findings in this Order. Therefore, we will use a factor of 22.95% for digital switching. This value was derived from Exh. C-115, Analog End Office Line Port Study, Recurring Costs, Prescribed Lives, August 1996.[39]

320. Based upon the investment levels reported above in paragraph 317, and a digital switching annual charge factor of 22.95%, we find that the monthly cost of the port is $1.29, and the per minute cost of a switch is $0.00136 and $0.00115, respectively, for GTE and U S WEST.

VIII. AVOIDED COSTS

321. The Act requires that incumbent LECs facilitate competition by reselling telecommunications services. The Act states that "[f]or the purposes of section 252(c)(4), a State commission shall determine wholesale rates on the basis of retail rates charged to subscribers for telecommunications services requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier." 47 U.S.C. ¶252(d)(3).

A. Services To Be Discounted

322. Commission Staff argues that the ILECs are required to calculate a discount for all services to be sold on a wholesale basis. They argue that the Act requires that all telecommunications services which are sold at retail must be sold on a wholesale basis. The Act does not distinguish between regulated and non-regulated services, nor does it exclude those retail services sold at a discounted rate. Commission Staff Brief at 36.

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[39] The U S WEST calculation was adjusted to reflect the exclusion of common costs and the right-to-use fee. Whereas the cost of the software is included in the purchase price of a new switch, we find that it is inappropriate to include the software expense as part of the annual charge factor. GTE's Response to Bench Request Set One, Number One; U S WEST's Response to Bench Request BCH 02-001.

323. U S WEST states that the only services that should be discounted are intrastate telecommunications services which are provided at retail prices. U S WEST specifically identifies carrier access service as a non-retail service. They also state that deregulated, enhanced services, such as voice mail; E*9-1-1; pay phone; RCC/Cellular/Wireless interconnection services; and billing and collection services are products that should not be included within the discount. While no party specifically disagrees with U S WEST, the Company does indicate that cost models supported by some of the parties do not exclude these services. U S WEST Brief at 67-68.

324. The issues raised by U S WEST are not whether this Commission should set discounts for particular services, but rather how to construct a model that will accurately determine the proper discount rates for those services. The Commission finds that all retail telecommunications services should be discounted, including both those that are currently offered at a discount and those that are deregulated. The Commission does note U S WEST's acceptance that services such as Centrex are properly included within this analysis. U S WEST Brief at 67. We agree with U S WEST that §252(d)(3) does not require the selling of enhanced services at a wholesale discount.

B. TSLRIC or Embedded Cost Studies

325. With the exception of U S WEST, all parties have proposed the use of embedded cost-of-service studies. Commission Staff argues that embedded cost-of-service studies are appropriate because the ILECs' revenue requirement was set to recover embedded costs. They note that TSLRIC has been used to determine the price floor, but not the actual rates, for some services. Staff's advocacy of embedded costs is consistent with its position that revenues should be used as the denominator in the calculation of the avoided cost discount. AT&T/MCI also claim that the fact that this Commission has used embedded costs to set rates argues for the use of an embedded "top down" cost study to determine the discount. Sprint points out that the FCC has said that ideally a state would use a study methodology consistent with the manner in which it sets rates. Both GTE and Public Counsel utilize embedded costs in their studies. U S WEST Brief at 68-69; Commission Staff Brief at 38; AT&T/MCI Brief at 69-70; Sprint Brief at 60.

326. U S WEST believes that it is more appropriate to use a TSLRIC study. They indicate that the FCC did not preclude the use of TSLRIC studies, and argue that the forward-looking TSLRIC studies properly measure the costs to be avoided. It should be noted that U S WEST also prepared an embedded cost-of-service study.

327. The Commission agrees with Commission Staff. This Commission has set rates to cover the separated embedded costs of U S WEST. Thus, the portion of costs that can be avoided can be determined directly from an analysis of those embedded costs.

C. Data Appropriate to the Cost Studies

328. The first question on data concerns whether it is more appropriate to use total state data or separated data. The ILECs allocate their costs on a state-by-state basis, and, then, separate costs between intrastate and interstate operations. Interstate revenue requirement and rate design is made pursuant to the FCC's jurisdiction, and the Washington intrastate revenue requirement and rate design is under our jurisdiction. U S WEST urges that the separated information is the correct information to utilize. The Company contends that the Act requires that the discounts apply only to the intrastate revenue requirement. Commission Staff agrees using the same rationale urged by U S WEST. U S WEST Brief at 69; Commission Staff Brief at 44.

329. Public Counsel supports the use of separated data. They point out that the courts have made it clear that states have jurisdiction over rates for intrastate service. They claim that §410(c) of the Communications Act of 1934 establishes mandatory separations procedures for jurisdictional allocation. Thus, while AT&T may not like the separations, it is inappropriate to include interstate costs in intrastate operations. Public Counsel identifies specific concerns with AT&T's attempt to perform its own allocations. They contend that the studies utilizing Bell Atlantic's information or U S WEST's CAAS data are inappropriate. Public Counsel points to specific costs, such as the interstate loop costs and advertising, which AT&T allocated to intrastate operations. Public Counsel Brief at 29.

330. AT&T/MCI believe that the use of unseparated data is appropriate. They claim that the use of separated data allows the ILEC to collect costs which will not be avoided. These include advertising and marketing costs of which approximately 25% are allocated to the interstate jurisdiction. They point out that CLECs that utilize resale products to serve their customers would also incur these costs, but, unlike the ILECs, they would not be able to collect the subscriber line charge. As a result, the CLECs would incur costs for which they would not receive the discount enjoyed only by the ILECs. This would result in an artificial barrier to market entry. AT&T/MCI Brief at 67-68.

331. AT&T/MCI refers to a Massachusetts Department of Public Utilities determination that the use of separated data shifts avoided costs between jurisdictions, similar to the way in which costs have traditionally been shifted to the long-distance market. *Id.* at 69.

332. GTE states that the use of separated or unseparated data makes little difference because none of the interstate services would be subject to resale. Thus, none of the costs are avoidable. GTE Brief at 80-81.

333. The discount rate established in this proceeding will apply to rates which reflect jurisdictionally separated costs. There is no evidence in this record to support the conclusion that the costs allocated or attributed to the interstate jurisdiction are avoidable due to the termination of retail services subject to our jurisdiction. Neither is there evidence in this record how any specific avoided cost, to which AT&T/MCI objects, has been recovered through rates subject to the FCC's jurisdiction. Furthermore, it is inappropriate for this Commission to set discounts for interstate rates. We require the use of separated data in the calculation of the appropriate discount rate.

334. The parties contest whether it is acceptable to use company specific, and in some cases proprietary, data, in addition to ARMIS data. U S WEST supports the use of company specific data, whether proprietary or not. The Company uses their CAAS/CARS data to isolate costs associated with services that are not subject to a discount, and to allow for the measurement of service specific discounts. U S WEST believes that product specific allocations are similar to the allocations it uses, in that they spread costs among jurisdictions and between regulated and deregulated services, which have withstood the scrutiny of regulators and auditors. These allocations are not arbitrary, but based upon well conceived principles and documented methodologies. U S WEST argues that the simplicity of the AT&T or MCI studies fails to measure reality. It is only by reviewing the information in their CAAS/CARS systems that one can identify the costs which would actually be avoided. U S WEST indicates that while the information may be proprietary, it was available for review by the parties. U S WEST Brief at 69-71.

335. GTE also supports the use of company specific data. The Company argues that the ARMIS reports were not designed to analyze avoided costs in a wholesale environment and within each USOA (uniform system of accounts) item. GTE performs many of their functions at work centers central to their nationwide operations. GTE explains that it is necessary to look at each work center in order to determine the level of avoided costs for an account on a nationwide basis. These relationships are then applied to the Washington account total. GTE also indicates that the information, while proprietary, is readily available to the parties in the case. GTE contends that AT&T's analysis, which does not rely on information specific to GTE, is insufficient to obtain accurate results. GTE Brief at 78-82.

336. Commission Staff believes that use of publicly available information is preferable, but does rely on the company specific information provided by GTE and U S WEST in order to reduce costs related to the specific services they determine are not subject to the discount.

337. Public Counsel expresses a strong preference for the use of publicly available information, but, as with Commission Staff's study of GTE, Public Counsel utilizes proprietary information to remove the costs of OS/DA. Public Counsel Brief at 31-32.

338. Sprint supports the use of proprietary information when publicly available information is not adequate to identify expenses which are unavoidable in a wholesale market. Sprint Brief at 69.

339. AT&T/MCI claim that only publicly available data should be used. They indicate that the use of proprietary data puts the ILEC in complete control of the study, creating a "black box" model which reflects the sponsor's sole opinion and is not verifiable. As a result, timely review by other parties and the Commission would be difficult. AT&T/MCI Brief at 70.

340. The Commission already in this Order has stated its preference for use of publicly available data wherever and to the greatest extent possible. However, it is important that the discount should reasonably represent the costs which are to be avoided. The use of a national proxy, which is not based upon company specific information, or ignoring evidence which indicates that costs will not be avoided, is unacceptable. Therefore, the Commission consents to the use of company specific and proprietary data, when other data are unlikely to provide reasonable and accurate results.

D. Separate Discount Rates for Groups of Services or One Composite Discount Rate

341. There appear to be three issues concerning the segregation of the wholesale discounts by product. First, whether directory assistance and operator services should be separated from the retail services' base. Second, whether nonrecurring revenues should be separated from the retail services' base. Third, whether the remaining retail services should be segregated between product lines.

1. Operator Services and Directory Assistance

342. U S WEST argues that operator services (OS) and directory assistance (DA) costs are not included within the costs of its other services, and, thus, should not be treated as avoided costs. The Company contends that if a reseller wants to avoid DA charges, they simply should not use the DA service. U S WEST argues it is unnecessary to include OS/DA in the discount, or to establish a separate discount, because there is already a wholesale rate. U S WEST Brief at 72-73.

343. GTE agrees with U S WEST and Commission Staff that OS/DA are separately tariffed services and should not be treated as avoided costs in the calculation of a wholesale discount. GTE Brief at 88-89.

344. Commission Staff points out that OS/DA are retail telecommunications services, and, as such, are subject to the resale requirements. However, Staff identifies several ways in which OS/DA varies from other retail services: OS/DA are considered discrete unbundled elements; a majority of their costs is recovered through separate rates; and the services do not have to be purchased by resellers. For these reasons, Staff recommends that a separate discount be calculated for OS/DA. Commission Staff Brief at 42-43.

345. While it may appear that Commission Staff and U S WEST agree on OS/DA, U S WEST disagrees with Staff's treatment of directory assistance costs. The Company contests the $16 million in Commission Staff witness Strain's calculation related to directory assistance. In her testimony, Ms. Strain states that the portion of directory assistance which is not recovered through directory assistance charges should be treated as avoided. This $16 million figure appears to have come from Public Counsel witness Dunkle's testimony in which he identifies two separate discounts that depend on whether or not the reseller chooses to self-provide directory assistance. Commission Staff does not make the same adjustment on the GTE study, because they note that GTE's directory assistance rate appears to cover the total directory assistance cost. U S WEST Brief at 79.

346. Public Counsel argues for two separate discount rates – one in which a reseller chooses to use U S WEST's OS/DA services, and one in which a reseller will obtain OS/DA from another source. When a reseller chooses not to utilize U S WEST for OS/DA, Public Counsel proposes to treat the directory assistance costs that are not covered through separate OS/DA charges as avoided. Public Counsel also excludes OS/DA revenues from the calculation. On the other hand, if a reseller chooses U S WEST to provide these services, then the costs are not treated as avoided, and the OS/DA revenue is included in the denominator for calculating the discount. Public Counsel Brief at 33-36.

347. AT&T/MCI contend they will self-provide OS/DA to their customers. U S WEST must make OS/DA available. Hence, the costs associated with these services must be treated as avoided costs. AT&T/MCI Brief at 71.

348. The Commission finds that OS/DA are telecommunications services, and, thus, are subject to resale. However, in so doing, we do not imply that one discount rate need apply to these services. Currently, U S WEST's residential telephone service includes one free directory assistance request monthly; the rate is $0.60 for each DA request thereafter. U S WEST's business telephone service does not include a free DA request – the rate is $0.60 for all requests. The DA situation for both residential and business service was substantially different during 1995, the base year for the cost studies in this proceeding. In 1995, both residential and business telephone service included four free DA requests monthly, and paid $0.25 for each DA request thereafter. The Commission's decision concerning the treatment of OS/DA must take these facts into consideration.

349. The AT&T/MCI position that 100% of these charges should be treated as avoided costs simply does not comport with the facts. In U S WEST's case, the Commission believes that the substantial price changes in DA service have altered the relationship between OS/DA revenues and costs. The Commission concludes that the substantial shortfall in U S WEST's OS/DA revenue represented by Public Counsel witness Dunkel no longer exists. Commission Staff indicates that, in the case of GTE, revenues for OS/DA exceed costs and Staff thus made no adjustment to treat a portion of the OS/DA costs as avoidable. Exh. 147 at 8. The exhibits of Commission Staff and Public Counsel reflect the same conclusion regarding GTE. The Commission finds that OS/DA revenues should not be included in the calculation of an overall discount, and that none of the direct costs of these services should be treated as avoided costs. Both U S WEST and GTE should provide a separate study that calculates the avoided cost of providing OS/DA as recommended by Commission Staff. Commission Staff Brief at 43.

2. Nonrecurring Costs

350. U S WEST argues that, like OS/DA, nonrecurring costs and charges should not be included in the avoided cost calculation. The Company claims that nonrecurring charges are not subject to resale since they are not "rates" insofar as the term is used in the Act. Furthermore, they indicate there are no avoidable nonrecurring costs associated with the retail environment. U S WEST is willing to calculate a separate discount for nonrecurring charges if the Commission finds it appropriate. U S WEST recognizes that they occasionally waive nonrecurring charges. U S WEST Brief at 73-74. GTE also argues that there are no avoided costs in the retail rates for nonrecurring costs. GTE accepts Commission Staff's proposal to exclude nonrecurring costs and revenues from the calculation. GTE Brief at 81.

351. Commission Staff favors excluding nonrecurring charges from the calculation of the overall wholesale discount. They indicate that the service ordering process will differ for retail and wholesale customers. Since this new service ordering process for wholesale customers is not yet in place, Staff believes that a separate discount would be appropriate until such time as it is. Commission Staff Brief at 43.

352. AT&T/MCI argue that, as with OS/DA, nonrecurring charges must also be included within the study, and the costs should be treated as avoidable. AT&T/MCI Brief at 71-72. AT&T's avoided cost study treats all customer service costs as 100% avoidable. These costs include a substantial portion of the cost related to nonrecurring charges. Public Counsel considers 90% of the customer service expense as avoidable cost, which includes those costs allocated to nonrecurring charges in the cost studies of U S WEST and Commission Staff.

353. We disagree with U S WEST's claim that nonrecurring charges should not be subject to the statutory resale provisions of §252(c)(4). Nonrecurring charges and recurring rates are used to recover recurring and nonrecurring expenses. As pointed out by U S WEST, the setting of nonrecurring charges involves, among other things, the consideration of the total costs associated with providing a service and with market demand. U S WEST Brief at 94. Just because a decision is made to recover costs through the payment of an up-front charge, does not exempt the rate from the requirements of §252(c)(4).

354. Having determined that nonrecurring charges are subject to resale, there remains the matter whether nonrecurring charges should be treated separately or as part of the overall discount.

355. U S WEST indicates there are no avoided costs associated with nonrecurring charges. U S WEST Brief at 74. We do not agree. It is unreasonable to assume that the time to process an order placed by a reseller will be identical to the time associated with a retail order. For example, the reseller will explain the various tariff options to the end-user and this will reduce the work effort by the ILEC. The reseller will also organize the transaction information in a manner which is convenient to the ILEC. This too should result in cost savings to the ILEC.

356. While the positions advocated by U S WEST and GTE understate the avoided costs, it also seems unlikely that 90%-100% of these costs can be avoided when these services are provided on a resale basis. We will authorize U S WEST and GTE to file separate discount rates for nonrecurring charges, and to exclude the revenues and costs associated with these services from the calculation of the wholesale rates for other products. Until such time however as GTE and U S WEST file, and the Commission approves, an avoided nonrecurring cost study, the Commission finds that a 50% avoided cost discount will apply to retail nonrecurring rates. The nonrecurring costs removed from the calculation of the general wholesale discount will be limited to the level of nonrecurring revenues removed from the calculation. Any remaining nonrecurring cost will be treated as direct avoided costs in the calculation of the general wholesale discount.

3. Segregation of the Discount by Product Line

357. U S WEST proposes to create five separate discounts for five distinct groups of services. They claim that the costs that are avoidable vary substantially between these groups. As an example, they argue that marketing costs for some services, such as vertical services, are substantially greater than they are for residence services. Hence, they contend that it is inappropriate to utilize an aggregate discount when there is such a wide range in each individual product's avoided cost, capital cost, and margin. In its post-hearing brief, U S WEST accepts the proposal to establish the individual discount rates in the pricing portion of the proceeding. U S WEST Brief at 74.

358. Several parties utilize an aggregate discount approach, but do not object in principle to disaggregated discounts. GTE proposes a study that would calculate a single discount factor. However, in its post-hearing brief, GTE states that it would be more accurate to utilize discount rates for groups of services. GTE Brief at 82.

359. Commission Staff also utilizes an aggregate discount rate. In her testimony, Ms. Strain indicates that in order to establish service specific discounts, a company should be required to prove that the variances are caused by differences in service specific, direct avoidable costs. She indicates that such issues should be part of the pricing phase of this proceeding. Commission Staff Brief at 44-45.

360. Public Counsel also considers product specific discounts to be acceptable. However, he does not believe that the industry has reached the necessary level of sophistication to identify small differences in discount rates. Instead, he sees the current issue to be the ability to determine whether certain costs are avoidable. Public Counsel Brief at 36.

361. Sprint proposes that the only exception to the aggregate discount is for OS/DA. Sprint Brief at 70.

362. AT&T/MCI object to the use of disaggregated discounts. They claim that no publicly available information allows the distinction of these separate discounts. They also contend that the use of separate discounts may require formal filings for new disaggregated discounts whenever new products are created, which would cause delays for resellers. They believe that proceedings to determine the appropriate discount would hinder Congress' goal of expediting local competition through the resale option. AT&T/MCI Brief at 72.

363. We agree with AT&T/MCI. The use of information not in the public domain to allocate costs between various product lines introduces uncertainty and creates unnecessary complications in a process that is intended to provide the opportunity for expedited competitive entry. The Commission orders that, excluding the OS/DA and nonrecurring charge categories discussed earlier, only one aggregate discount shall be calculated.

E. Components of Avoided Costs

364. All parties seem to use the same breakdown of avoided costs, namely direct costs, indirect costs allocated in some fashion based upon direct costs, and uncollectible expenses.

1. Direct Avoided Costs

365. Most of the parties in this proceeding utilize a similar list of directly avoidable costs. These include customer service, product management, sales expenses, and product advertising. However, even though the parties agree that some part of these accounts should be treated as avoidable, they vary greatly in their determination of the exact portion that should be considered avoidable. In addition to the above list of accounts, AT&T/MCI, Public Counsel, and Commission Staff claim that other accounts also contain avoidable direct costs.

366. Moreover, several parties label uncollectibles as a direct cost avoidance, while others include it as an indirect avoidance; for the most part, though, uncollectibles are treated as independent of the other costs. We will discuss uncollectibles, *infra*, at paragraph 397.

a. Customer Service, Product Management, Sales, and Product Advertising

367. Each of the parties proposes different treatment for each of these accounts. They range from AT&T's assumption that 100% of these are avoidable, to the analyses of Commission Staff, U S WEST, and GTE which indicate different levels for different accounts based upon company specific data. AT&T/MCI Brief at 75; Commission Staff Brief at 49; U S WEST Brief at 80; GTE Brief at 85.

368. AT&T argues that these costs will be incurred by the reseller, who should not bear their own costs and those of the ILECs. AT&T Brief at 75.

369. U S WEST and GTE, on the other hand, contend that the ILECs will continue to incur some of these expenses. For example, they state that service ordering activities will not be avoided altogether. U S WEST also points out that some of the costs treated as avoided by AT&T are related to products that will not be available for resale. U S WEST Brief at 80; GTE Brief at 85.

370. We disagree with AT&T's supposition that all of the costs in these accounts are avoidable in a wholesale market.

371. As discussed earlier, the Commission finds it appropriate to use company specific, including proprietary, information as a means of developing the proper level of avoided costs. Also, to be consistent with our discussion above on the separation of the discount rate for nonrecurring charges, we find appropriate U S WEST's treatment of customer service expense. The Commission concurs that costs related to services not available for resale should be excluded from the avoided cost calculation. Based upon